

Annual Drinking Water Quality Report

(Consumer Confidence Report)

Sheppard Air Force Base

A decorative graphic of a water splash with bubbles, rendered in shades of blue and white, positioned horizontally across the middle of the page.

2019

1 Jan 19 - 31 Dec 19

Public Participation Opportunities

To learn about future public meetings concerning your drinking water, or to request to schedule one, please call us.

Bioenvironmental Engineering

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Este reporte incluye información importante sobre el agua para tomar.
Para asistencia en español, favor de llamar al telefono (940) 676-3080.

Drinking Water Information

WATER SOURCES:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground it dissolves naturally-occurring minerals and in some cases radioactive material and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic chemicals, pesticides, herbicides, radioactive isotopes, and organic chemical contaminants.

It is possible that ALL drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

OUR DRINKING WATER Meets or Is Better Than All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required test and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Special Notice

Required language for ALL community public water supplies:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

Where do we get our drinking water?

Our drinking water comes from the following surface water sources: Lake Kickapoo, Wichita Falls secondary terminal reservoir, and Lake Arrowhead. Sheppard AFB purchases water from the City of Wichita Falls and is therefore considered a consecutive water system. Wichita Falls provides most monitoring and treatment. Bioenvironmental Engineering monitors for contaminants and hazards specific to our distribution system. For more information on source water assessments and protection efforts, please contact us.

Secondary Constituents

Many un-harmful constituents often found in drinking water (such as calcium, sodium, or iron) can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, and monitored by the EPA. These constituents, though not required to be reported in this document, may greatly affect the appearance and taste of your water.

About the Following Pages

The U.S. EPA requires water systems to test for up to 97 contaminants. The pages that follow list all the federally regulated or monitored contaminants which have been found in your drinking water.

Definitions	
Maximum Contaminant Level (MCL)	The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The level of contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL)	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Abbreviations	
NTU	Nephelometric Turbidity Units (a measure of suspended particles in the water)
MFL	million fibers per liter (a measure of asbestos)
pCi/L	Picocuries per liter (measure of radioactivity)
ppm	Parts per million
ppb	Parts per billion
µg/L	micro grams per liter
µOhms/cm	Measure of dissolved solids in the water
OoCysts/L	Total number found in one liter of water
Cysts/L	Total number found in one liter of water

The following contaminants are monitored at points throughout the distribution system.

Inorganic Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrite (measured as Nitrogen)	2015	0.065	0.065-0.065	1	1	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate (measured as Nitrogen)	2019	1	0.53-0.53	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Organic Contaminants testing waived, not reported, or none detected

Maximum Residual Disinfectant Level

Systems must complete and submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR). On the CCR report, the system must provide disinfectant type, minimum, maximum, and average levels. The monthly average disinfectant level is used to determine compliance with the MRDL.

Disinfectant	Year	Monthly Average	Minimum Sample Level	Maximum Sample Level	MRDL	MRDLG	Units	Source of Disinfectant
Chlorine Residual	2019	3.22	0.5	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes

Disinfectant Byproducts

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
*Haloacetic Acids (HAA5)	2019	31	17.5-50.4	No goal for the total	60	ppb	No	Byproduct of drinking water disinfection.
**Trihalomethanes (TTHM)	2019	37	24.8-44.4	No goal for the total	80	ppb	No	Byproduct of drinking water disinfection.
Chlorite	2019	0.82	0-0.82	0.8	1	ppm	No	Byproduct of drinking water disinfection.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

** The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Picloram	2019	0.166	0.166-0.166	500	500	ppb	No	Herbicide runoff

Lead and Copper

Contaminant	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violations	Likely source of Contaminant
Copper	2018	1.3	1.3	0.21	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2018	0	15	4	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Required Additional Health Information for Lead

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>"

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.31 NTU	1 NTU	No	Soil Runoff
Lowest monthly % meeting limit	100%	0.3 NTU	No	Soil Runoff

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Coliform Bacteria

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. Of Positive Samples	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely source of contaminant
0	1 positive monthly samples	1	-	0	No	Naturally present in the environment

Regulated Contaminants

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Antimony	2017	0.001	0.001	0.006	0.006	MG/L	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	2017	0.001	0.001	0.01	0.01	MG/L	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2019	0.043	0.025-0.043	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	2019	1.2	0-1.2	100	100	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide	2017	16.3	0-76.3	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2019	0.7	0.661-0.663	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Selenium	2017	0.005	0.005	0.05	0.05	MG/L	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Radioactive Contaminants

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
Beta/Photon emitters	2017	8.4	8.4-8.4	0	50	pCi/L*	No	Decay of natural and man-made deposits
Combined Radium 226/228	06/20/2011	1	1-1	0	5	pCi/L	No	Erosion of natural deposits
Uranium	2015	1.3	0-1.3	0	30	ug/l	No	Erosion of natural deposits

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Violations Table

Total Coliform

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Violation Type	Violation Begin	Violation End	Violation Explanation
None	None	None	None

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Water Conservation Tips

Turn water off when shaving and brushing your teeth. Run only full loads in washing machine and dishwasher Adjust lawn sprinklers to water the grass not the street. Take shorter showers. Turn water off while lathering up. Use the garbage can rather than the garbage disposal.

Water is a natural resource not to be wasted.

